

6 November 1969
SG-69/369

MEMORANDUM FOR: Chief, Printing Services Division, OL

SUBJECT : XEROX Computer Forms Printer 2400-IV --
Authorization to Rent

1. The attached paper represents the results of a study of the XEROX Computer Forms Printer 2400-IV to be used for the production of multiple copies of computer-printed listings. The CFP appears to be capable of producing better quality reproductions at lower cost than our present method of using the computer printer.

2. Authorization is requested to rent a CFP and one additional 10-bin sorter. Monthly rental (on the basis of 300,000 copies per month) will be \$2,387.50.

3. In spite of a projected heavy use of the machine, we do not anticipate that it will be in continuous operation. At such times that it is not in operation, it will be available for use by other Directorates.

[REDACTED]
DDP/SG

25X1A

Att.

cc: C/RID

Concur:

[REDACTED] DDP/IPC

25X1A

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b. Number and Type of Copies - The CFP produces copies at a maximum speed of 40 pages per minute (2400/hr). Its actual running time is estimated at 1400 copies per hour, or 60 % efficiency. It will make up to 30 copies of one page. Copies are automatically collated and stacked. The standard model has a 10-copy bin; two additional 10-bin units are available for \$32.50 per month per unit. Each page reproduction is a Xerox copy which will not smudge or fade and which can be written or typed on. The machine can be used with overlays to produce forms, outlines, headings and other graphics. It accepts only sprocketed continuous form paper up to 14 7/8 x 11 inches. Output may be pre-punched or plain, ranging in size from 10 x 8 inches to 13 x 8 1/2 inches. Copy may be miniaturized at a reduction rate of 77 %.

c. Supply and Maintenance - The CFP requires 20 lb paper and toner, both used by other Xerox copiers. Xerox provides preventive maintenance on the basis of the number of copies made,-- approximately every 100,000 copies. Emergency service is available 24 hours a day with a 2-hour response time. Reliability and service are rated good by the supervisor of the demonstration machine. Xerox trains the operator; time required estimated at one half-hour.

4. Projected Savings

The estimated 3,641,000 pages of hard copy produced yearly represent the machine output of a total of 16 computer applications. Of these, 13 produce some listings in 4 or more copies, accounting for approximately 3,000,000 pages of hard copy per year. Eight of the 13 require listings in more than 4 copies (ranging from 5-24) and amount to about 1,750,000 pages of hard copy a year.

Using one monthly production job as an example, the production of listings totalling 20,000 pages in 5 copies each, now costs us \$4,790.00 (2 computer passes to print, paper, decollating and binding). The same job on the CFP would cost \$3,627.00 figuring the CFP on the basis of 200,000 copies per month, a total savings of \$1,163.00 over the computer printer.

Use of the CFP on all applications requiring 4 or more copies per listing would give an estimated average monthly total production of 250,000 pages per month. The inclusion of certain non-recurring items, such as [REDACTED], would bring the total to about 300,000 pages. Of this total, applications requiring more than 4 copies (maximum number of copies per computer run is 4) account for approximately 185,000 pages; those requiring 4 copies for approximately 115,000 pages. Figuring the cost of the

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CFP on the basis of 300,000 copies per month (rental \$2,355.00 or .00785 per copy), the estimated machine costs for both groups of listings would be as follows:

MORE THAN 4 COPIES (185,000 PAGES) *

<u>Computer Printer</u>		<u>XEROX CFP</u>	
Line Printer (2 passes)	\$ 6,300.00	Line Printer (1 pass)	\$ 3,150.00
Decollation	\$ 300.00	CFP (5 cc)	\$ 1,210.00
TOTAL	\$ 6,600.00	TOTAL	\$ 4,360.00

* Estimate based on requirement for 6 copies. Actual requirements range from 5 to 24.

4 COPIES (115,000 PAGES)

<u>Computer Printer</u>		<u>XEROX CFP</u>	
Line Printer (1 pass)	\$ 2,880.00	Line Printer (1 pass)	\$ 2,880.00
Decollation	\$ 140.00	CFP (3 cc)	\$ 677.00
TOTAL	\$ 3,020.00	TOTAL	\$ 3,557.00

TOTAL PRODUCTION 4 COPIES AND OVER

<u>Computer Printer</u>	<u>XEROX CFP</u>
\$ 6,600.00	\$ 4,360.00
<u>3,020.00</u>	<u>3,557.00</u>
\$ 9,620.00	\$ 7,917.00

5. Microfilm-to-Hard Copy Machine

Estimates of cost and man hours for the PSD microfilm-to-hard copy Copyflo machine show low processing costs at substantially higher turnaround times. The estimated cost for the job of

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reproducing listings totalling 20,000 pages in 5 copies each would be \$1,603.00, assuming Copyflo processing and binding operating at optimum speed, about 95 hours for the job. In fact, actual experience with the Copyflo process indicates that the volume of work in PSD means substantially slower production time, probably in this case, several weeks.

6. Other Factors

a. Copy Quality - Xerox reproduction quality is superior to the computer carbon copies. Copyflo quality at its best is comparable to Xerox CFP, but does not maintain this level consistently.

b. Miniaturization - The reduction in the size of the output is an advantage for listings which must be stored in safes, frequently at field stations with limited storage facilities. Using 14 6/8" x 11" paper in the computer, rather than the 11" x 8 1/2" now used in many applications, permits printing 30 % more data on each page at no increase in storage requirements or inconvenience in handling.

7. Conclusion

The XEROX CFP appears to provide better copy quality at lower cost than our present system, with peripheral advantages in reduced machine time, reduction in listing size, and simplification of supply.

The comparative estimates suggest that we should take advantage of the PSD Copyflo bargain rates for jobs where time is not a critical factor and where the number of copies is constant. Such jobs, amounting to about 10 % of the total production, would include the name grouping listings and [REDACTED]

ATTACHMENT to
SG-69/369

XEROX 2400 IV COMPUTER FORMS PRINTER

1. Problem

Our present production requirements call for multiple copies of paper listings for several programs. Hard copy production is currently running at an estimated 3,641,000 pages a year.

Multiple copies are produced by RID/ADB using the computer printer for the required number of copies which are then decollated and bound. In some cases, a second computer run is scheduled to provide copies in excess of the maximum obtainable on one run.

This method is unsatisfactory on several counts. Copies are of poor visual quality after the first two or three impressions, and listings in frequent use smudge and blur. To use a high-speed computer as a printing press is expensive and pre-empts machine time which could be used for other processing. Five different sizes of paper complicate the supply situation. Non-standard sizes are difficult to obtain, occasionally delaying the production of listings, and require about 10 times the standard number of man hours to decollate.

2. Alternate Solutions

The XEROX 2400 IV Computer Forms Printer (CFP) provides an alternative means of producing multiple copy printouts. Printing Services Division offers a second alternative, the microfilm-to-hard-copy machine.

3. XEROX 2400 IV Computer Forms Printer (CFP)

The following description of the CFP is based on a demonstration of the machine and on study of material furnished by the manufacturer.

a. Production Costs - Rental costs are based on a minimum rental charge plus a surcharge per copy above the number of copies included in the minimum charge. The charge per copy decreases as the number of copies rises. The minimum rental of \$850.00 per month, after the initial break-in period, covers 57,000 copies per month. Additional copies are \$.010 per copy up to 100,000 copies, \$.006 per copy from 100,001 to 175,000 copies, and \$.005 per copy for over 175,000 copies per month. (Reference A.)